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GSC20 GLOBAL PERFORMANCE SWITCHERS

Jameco Part Number 196664

FEATURES:

- Industry's smallest 20W switcher
- Business-card size (2.0 x 3.5 x 0.71")
- Approved to UL1950, IEC950 and CSA22.2-234 Level 3, EN60950
- EMI FCC Class B, CISPR22B
- Overvoltage protection standard
- CE marked to LVD

SPECIFICATIONS:

AC Input
90-264Vac, 47-63Hz single phase.

Input Current
Maximum input current at minimum 120Vac, 60Hz with full rated output load is 0.6A.

Hold-up Time
15 mSec minimum from loss of AC input at full load, nominal line (115Vac).

Output Power
Normal continuous output power is 20W, 24W peak for 60 sec. maximum duration, 10% duty cycle. Factory set to begin power limiting at approximately 28W.

Output Regulation
Regulation from initial setpoint measured by changing load from 5% load to 50% load or 50% load to full load in either direction. Initial setpoint tolerance is measured at 50% load. A minimum load of 5% of the output current is required to maintain proper regulation.

Overload Protection
Fully protected against short circuit and output overload. Short circuit protection is cycling type power limit.

Output Noise
0.5% RMS, 1% pk-pk, 20MHz bandwidth, differential mode. Measured with scope probe directly across output terminals of the power supply with load terminated with 0.1uF capacitor.

Transient Response
750µSec typical response time for return to within 0.5% of final value for a 50% load step within the regulation limits of minimum and maximum load, dI/dt <0.2A/µSec. Maximum voltage deviation is 3.5%. Startup/shutdown overshoot less than 2%.

Reverse Voltage Protection
All outputs protected against inadvertent application of reverse voltage up to 1 times rated current of the reversed output.

Overvoltage Protection
Built in with firing point set per ratings table. OVP firing reduces voltage to less than 50% of nominal voltage in 50mSec.

Voltage Adjustment
Factory set with fixed resistors to maximize reliability.

Efficiency
70% minimum for the 5.1V model at full rated load, nominal input voltage. Efficiency increases as output voltage increases.

Turn-on Time
Less than 1 second at 115Vac, 25ºC (inversely proportionate to input voltage and thermistor temperature).

Input Protection
Internal AC fuse provided on all units.

Inrush Current
Inrush is limited by internal thermistor. The inrush at 230Vac, averaged over the first AC half-cycle under cold start conditions will not exceed 32A.

Temperature Coefficient
0.03%/ºC typical on all outputs.

Environmental
Designed for 0 to 50°C operation at full rated output power; derate output current and total output power by 2.5% per °C above 50°C. See Environmental and Packaging Specifications (p. 11) for additional information.

EMI/EMC Compliance
All models include built-in EMI filtering to meet the following emissions requirements:

EMI SPECIFICATIONS	COMPLIANCE LEVEL
Conducted Emissions	EN55022 Class B; FCC Class B
Static Discharge	EN61000-4-2, 6 kV contact, 8 kV air
RF Field Susceptibility	EN61000-4-3, 3 V/meter
Fast Transients/Bursts	EN61000-4-4, 2 kV, 5 kHz
Surge Susceptibility	EN61000-4-5, 1 kV diff., 2 kV com.

Earth Leakage Current
Leakage current measured in the Gnd wire connection:

Normal Leakage	Fault Leakage	Test Voltage	Test Method
200µA	370µA	132Vac/60Hz	UL1950
360µA	660µA	254Vac/50Hz	IEC950

Safety
Condor D.C. Power Supplies, Inc. declares under our sole responsibility that all GSC models are in conformity with the applicable requirements of EN60950 following the provisions of the Low Voltage Directive 73/23/EEC. All GSC models are approved to UL1950, CSA22.2 No. 234 Level 3, IEC950 and EN60950.

Model	Output	Current	Load Regulation	Initial Setpoint Tolerance	OVP Setpoint	Ripple and Noise
GSC20-5	5.1V	3.8A	0.75%	2.5%	6.2 ± 0.6V	1.4%
GSC20-12	12V	1.7A	0.75%	2.5%	15.6 ± 1.1V	1%
GSC20-15	15V	1.4A	0.75%	2.5%	18.5 ± 1.5V	1%
GSC20-24	24V	0.85A	0.75%	2.5%	28 ± 2.5V	1%
GSC20-28	28V	0.7A	0.75%	2.5%	34 ± 2.8V	1%

GSC20 MECHANICAL SPECIFICATIONS:

INPUT: J1 MOLEX P/N 22-43-8040

PIN 1) AC LINE
PIN 2) N/C
PIN 3) N/C
PIN 4) AC NEUTRAL

GND: 0.098 DIA. THRU HOLE

OUTPUT: J2 MOLEX P/N 22-43-8040

PIN 1) OUTPUT #1
PIN 2) OUTPUT #1
PIN 3) COMMON
PIN 4) COMMON

MATING CONNECTOR MOLEX P/N

HOUSING 50-37-5043
CONTACT 08-70-1040

NOTE: 3A MAXIMUM RECOMMENDED CURRENT PER CONNECTOR PIN

WEIGHT: 0.25 LB. [0.113 KG] MAX.

TOLERANCES:
X.XX = ± 0.030 (0.76MM)
X.XXX = ± 0.010 (0.25MM)